

Municipal Facilities Operation & Management: **2.1.7 Metropolitan Wastewater Operations**

2.1.7.1 Introduction

Although sewage systems themselves are not a regular source of storm water pollution, raw sewage contains pollutants that can pose a serious threat to both human health and the quality of receiving waters if they enter the storm drain system through incidents such as spills, leaks, or overflows. The goal of this program component is to minimize the impact of City-owned sewer facilities on storm water quality and to procedurally simplify compliance with the Municipal Permit by referencing existing plans and permits in place for currently permitted publicly owned industrial facilities.

The City's program must meet the requirements of the Municipal Permit, as summarized in Table 2.1.7-1.

Table 2.1.7-1. Permit Requirements – Metropolitan Wastewater Operations.

Section	Requirement (Summary)	Permit Section
2.1.7.2	Implement pollution prevention methods	F.3.c.(1)
2.1.7.2	Designate and implement minimum BMPs to protect water quality	F.3.a.(4)
2.1.7.2	Inspect areas and activities annually	F.3.a.(7)
2.1.7.2	Comply with City of San Diego storm water ordinance	F.3.a.(8)
2.1.7.2	Implement maintenance at all structural controls designed to reduce pollutant discharge	F.3.a. (5)(a)
2.1.7.2	Develop and update annual inventory of MWWD large sewage pumping stations	F.3.a.(2)
2.1.7.2	Implement and designate an Educational Program requirement for all pertinent target communities	F.4.a F.4.b F.4.c
2.1.7.3	Develop a budget for storm water expenditures for each fiscal year covered by the Municipal Permit	F.8
2.1.7.4	Document activities for Jurisdictional Urban Runoff Management Program Annual Report	I

This component's objectives are to:

- Develop and implement a storm water pollution prevention plan to designate, implement, and periodically update storm water practices at municipal wastewater operations facilities to control the introduction of pollutants to storm water.
- Identify an implementation schedule and associated estimated costs needed to implement the municipal wastewater operations component through the five-

year life of the Municipal Permit.

- Develop and implement a storm water best management practices employee-training program.
- Conduct annual inspections where required.
- Conduct activities in accordance with the City of San Diego Storm Water Ordinance.
- Keep any sewage system overflows caused by pumping system failures at major pump stations from entering the storm drain system or receiving waters to the maximum extent practicable.
- Maintain the Computerized Preventative Maintenance Program at sewage pumping stations in order to prevent failures that can cause spills and overflows and provide an inventory of those pump stations.
- Respond to overflows and investigate causes of failures.
- Notify public health authorities when there is a threat to public health.

Facilities Covered by the Permit

The Metropolitan Wastewater Department (MWWD) Operations and Maintenance Division operates the facilities covered under this program. These facilities can be divided into two categories. The first category, hereafter referred to as plants, includes those facilities that are subject to the California General Industrial Activities Storm Water permit and are currently permitted under this general plan. As such, these facilities have Storm Water Pollution Prevention Plans in place. Included in this category are the Point Loma Wastewater Treatment Plant, the North City Water Reclamation Plant, the South Bay Water Reclamation Plant, the San Pasqual Water Reclamation Plant, and the Metropolitan Bio-solids Center. The second category includes Pump Station #1, Pump Station #2, Pump Station #64, Penasquitos Pump Station, East Mission Gorge Pump Station and Pump Station 65. All facilities in this category will be referred to as pump stations in the following paragraphs.

2.1.7.2 Activities

The MWWD shall maintain a designated coordinator or coordinators to keep informed about the Municipal Permit so that he/she can provide guidance to department management and staff in implementing the Urban Runoff Management Program document. The name(s) of the coordinator shall be submitted to the Storm Water Program by Thursday, February 21, 2002— the Urban Runoff Management Program implementation date. The MWWD shall provide the name of a new representative whenever the designated coordinator is replaced. The Storm Water Program will interact with the coordinator(s) to provide the latest Municipal Permit information and to request annual compliance reports from the MWWD Operations and Maintenance Division.

The MWWD Operations and Maintenance Division will conduct the following activities, which are further described in the sections below:

Compliance with Storm Water Ordinance and with the General Industrial Permit

MWWD Operations & Maintenance will perform all activities in a manner that comply with the Storm Water Ordinance. The plants will comply with the San Diego County Municipal Storm Water Permit by adhering to the various elements of the above referenced General Permit. These elements are:

- Maintenance of an approved Storm Water Pollution Prevention Plan (SWPPP) for each facility
- Inclusion in the watershed based inventory of municipal facilities as high priority municipal areas
- Implementation of appropriate BMP's to eliminate flow and pollutant entry into the storm drain system
- Inspection on a regular basis by the MWWD Technical Services Division for compliance with permit conditions and implementation of BMP's

Storm Water BMPs to Protect Water Quality

MWWD Operations has designated and implemented BMPs to protect water quality. The BMPs include good housekeeping activities at MWWD facilities, clean up and mitigation activities after a sewer spill, and erosion control in areas disturbed by the work of MWWD crews or construction. In addition, MWWD uses the City's Equipment Division in the General Services Department to wash vehicles and to perform scheduled maintenance on vehicles. This minimized pollution from wash down, leaks and failures.

Vehicle Parking and Storage Inspections

MWWD inspects their vehicle parking and storage areas at least monthly to conduct housekeeping and to verify compliance with the Urban Runoff Management Plan.

Routine Inspection and Cleaning, Review of Activities

The following self-inspections processes will be performed at Operations Centers:

- Facilities will be inspected annually and cleaned as needed.
- Maintenance activities will be reviewed annually to verify that appropriate storm water BMPs and practices are being utilized.
- Report modifications and corrective actions identified during self-inspection to the Storm Water Program annually as part of the Program Assessment.

Twenty-Four Hour Non-Storm Water Discharge Reporting

Certain non-storm water discharges, because of their nature or magnitude, require timely reporting to the Regional Board. A report will also be forwarded to the Storm Water Program for record keeping purposes. Non-storm water discharges that pose a significant threat to water quality or human health, will be evaluated by City staff against the “24-Hour Non-Storm Water Discharge Reporting Checklist”. A significant threat to water quality or human health is determined on a case-by-case basis and will be dependent on the type of pollutant, the degree of the violation (i.e. the amount of pollutant discharged into the municipal storm drain system), the proximity to receiving water bodies, the potential for exposure to the public, and the potential for environmental damage. Examples of discharges that will be reported include sewage spills and non-storm water discharges, such as a significant sediment load into Los Penasquitos Lagoon.

Where staff determines that discharges pose a significant threat to water quality or human health, the Storm Water Program or responsible City department will notify the Regional Board orally and by facsimile within 24 hours of the discharge event. Additionally, a written report of the event and follow up actions will be sent to the designated Regional Board contact for the Municipal Storm Water Permit, if needed, within 5 working days of the day the event was identified. A standard reporting form will be created by the Storm Water Program to be used by all City departments to facilitate consistency and maintain clear communication with the Regional Board. The report will contain the following information:

- Description of the event and it’s cause;
- Duration of the event;
- Time the event is expected to continue if it has not been corrected;
- Steps taken to correct the non-storm water discharge event.

Storm Water Ordinance Compliance

MWWD Operations will perform all activities in a manner that comply with the Storm Water Ordinance.

Structural Controls Maintenance Schedule

MWWD Operations has developed and implemented a schedule for the maintenance of all structural controls. This schedule includes the inspection, the removal of wastes that may have accumulated, and the proper disposal of all wastes. In addition, every effort is made to eliminate and/or clean up discharges to the storm water system during maintenance and cleaning operations.

Spill/Leak/Overflow Response and Containment at pump stations

The Operations & Maintenance Division uses event notification procedures and contact lists for mobilizing crews in response to spill events at the pump stations. The Operations & Maintenance Division is responsible for implementing these procedures, where applicable, to contain spills, leaks, and overflows at the pump stations in the most efficient manner possible.

Preventive and Corrective Maintenance

MWWD Operations & Maintenance Division will continue the implementation of the Preventative Maintenance Program at plants and pump stations to prevent failures that can cause spills and overflows. The following actions are incorporated into the program:

- Perform scheduled maintenance to maximize the reliability and life expectancy of all equipment.
- Prioritize repairs based on the nature and severity of the problem.
- Administer a corrective work order system to address problems with equipment identified by operations and maintenance staff.
- Maintain a spare parts inventory to reduce equipment repair time
- Track and schedule routine maintenance using the Computerized Preventative Maintenance Program

Public Health Agency Notification

The following procedures are implemented, to the maximum extent practicable, to notify public health agencies when a sewage release may pose a threat to public health.

- Notify the County Department of Health Services, or other local health agency, of the spill location, amount and potential discharge point to the receiving water.
- Notify other agencies as needed to help determine the extent of the threat and document the release

Education & Training

1. Internal/Municipal Education:

The City of San Diego plans to conduct two levels of education and training for staff: General and Activity Specific. All staff will receive a basic introduction to the issue via a “General Storm Water” workshop created by the General Services Storm Water

Pollution Prevention Program. Additionally, those departments or work groups that perform work activities specifically identified in, and affected by, the Permit will create, execute and fund Activity Specific training sessions. These sessions will be designed to address work processes, functions and behaviors that are specific to that work group. They will identify the Best Management Practices (BMPs) necessary to prevent illegal discharges into the City's storm water collection and conveyance system and recreational waters.

A) General Storm Water Training Created By the Storm Water Program:

The General Storm Water workshops, while created by the Storm Water Program, are implemented by MWWD staff trainers. Items 2,3,4,5 and 6, below, are the educational materials created for the workshops. A "Train the Trainer " workshop was also created and given by the Storm Water Program (Item 7) to familiarize the trainers on the material and subject matter prior to rolling out the General Training workshop to their department staff.

Table 2.1.5-2. Storm Water Program General Training.

ITEM	AVAILABLE
1. Clean Water Leader/ 3-Cs BMP Reference Card	July 2001
2. General Storm Water Training Video	October 2001 To be completed by June 2002
3. City Employee Brochure	October 2001
4. Stop Pollution Pad	October 2001
5. Employee Knowledge & Behavior Survey. To be given before and after each General Storm Water Workshop by department trainers	October 2001
6. Frequently Asked Questions for department Trainers	October 2001
7. Train the Trainer Sessions. Training of department trainers on content and materials for the General Storm Water Workshops	September 10-14, 2001
8. Storm Water Newsletter	July/August 2002*

**Note that Items 1 through 7 occurred in FY 2002 for city-wide distribution, and that Item 8 is slated for Fiscal Year 2003 and reflects an estimated available date.*

B) Activity Specific BMP Training(s):

In addition to the general storm water training provided to all departmental staff, the MWWD will develop and implement training modules that are designed to meet the specific needs of individual work groups. This training will be developed and administered by MWWD staff and will address pertinent storm water issues that each group might encounter in their daily work.

Table 2.1.7-3. Department Training Activities.

ITEM	AVAILABLE*
Implement department-wide training for the general storm water overview	Completed by March 2002
Identify needs, create and execute Activity Specific education and training for staff	Initial training completed by December 2003 with refresher training every 5 years
Create Storm Water BMP Reference Binders for Staff	Already completed for compliance with General Industrial Permit
Update BMP Reference Binders –periodic	Completed annually as required by the General Industrial Permit
Train new employees on Storm Water activities. General and Activity Specific to be conducted by supervisor	New Employee Orientation

Note the completion dates listed are estimated. Actual completion dates may vary depending upon other program factors.

External Education:

The MWWD has programs and public information materials in place to educate, inform and involve the public in pollution related issues. The information is disseminated through facility tours, brochures, public speaking engagements, and media campaigns focusing on public awareness and participation. Although the bulk of the information focuses on collection, treatment, disposal and pollution prevention as it relates to sewage, we can also provide links to information about storm water pollution. Where possible, the public information materials will be modified to address some of the basic issues with respect to Storm Water pollution. This information will focus on the delineation between sewer and storm water systems and will include the Think Blue logo and contact information for the City's Storm Water Program. Current MWWD programs and publications include:

Table 2.1.7-4. External Education Programs.

MWWD Program Name	Description
War on Grease	Program to educate the public on the proper disposal of grease. Communities are targeted based on the frequency of grease related problems in specific areas. Brochures, grease scrapers and refrigerator magnets are distributed to residential customers.

MWWD Program Name	Description
Canyon Watch	Program to educate groups that spend recreational time hiking in our urban canyons. Group members are taught to recognize signs of both real and potential sewer spills in the canyons, and to distinguish between sewer spill and storm runoff.
School education	City of San Diego schools are provided with teacher's manuals about the MWWD and pollution control. They may use this in their regular curriculum.
Sewer Spill Hotline	Telephone number for citizens to report suspected sewage spills (619-515-3525). This number is manned 24 hours per day, 7 days per week via the centralized City dispatch center.
Speakers Bureau	MWWD staff provides informational speeches/discussions to a variety of public groups. These talks may focus on any number of issues, including an overview of the department, pollution prevention, environmental issues, and regulations.

Table 2.1.7-5. External education brochures.

MWWD Brochure Name	Last Date Printed	Quantity on hand
Pt. Loma	03/99	500
MBC	03/01	2000
NCWRP	03/01	1500
Ocean Monitor	09/01	15,000
IWCP	02/01	100
Dept. Brochure	currently being re-worked	-----
Grease	09/01	50,000
WW Collection	01/01	500
School Book	will be revised next year	-----
SBWRP	currently being designed	-----
Key Facts	currently being re-worked	-----
Flow Monitor Fact sheet	06/01	100
Energy Fact Sheet	10/01	100

MBC – land application	In design stage	-----
Neighborhood Profiles	in progress	-----
Canyon Watch Fact sheet	10/01	100

SPWRP fact sheet	05/01	25
Storm runoff vs. WW Sewer	in design	-----

2.1.7.3 Phasing

The MWWD complies with storm water regulations as part of the requirements for the Point Loma Wastewater Treatment Plant National Pollutant Discharge Elimination System (NPDES) permit and the General Industrial Storm Water Permit. These permit programs have required the implementation of storm water related activities and projects for several years, including capital improvement projects and provisions for major repairs. Training of appropriate staff has been performed and non-structural BMPs are implemented in compliance with these permits. Based on the existing permits, MWWD does not have a phased approach to the Municipal Storm Water Permit.

2.1.7.4 Annual Assessment

The following form is representative of the quantitative and qualitative measures that will be tracked by the Storm Water Program regarding the Metropolitan Wastewater Operations component in order to prepare the Jurisdictional Urban Runoff Management Program annual assessment. *These assessment factors and questions are presented for information only; some questions may be modified prior to each annual assessment period, and not all of the factors or questions below may apply to each component's responsible department(s).* Prior to each fiscal year, a tailored Annual Assessment Form will be distributed to responsible departments, and will include an Excel spreadsheet containing direct and indirect quantitative and qualitative measures similar to the example below. The Storm Water Program will provide a blank copy of the Annual Assessment Form and additional guidance to department management prior to the beginning of each fiscal year. Submission of this report will require department director approval.

Program Assessment Form - Municipal Facilities Operations and Management – Metropolitan Wastewater Operations

QUANTITATIVE ASSESSMENT:

Activity	Quantity	Units	Comments
Number of high priority municipal facilities		#	
Number of high priority municipal facilities targeted for inspection		#	Due to calendar-year vs. fiscal year, staffing, budget, etc., as well as Permit Section F.3.b.(6)(d), the number of sites targeted for inspection may be less than the actual number of sites.
Number of high priority municipal facilities inspected		#	Number of sites (not the number of inspections, which may or may not be the same).
Number of medium and low priority municipal facilities inspected		#	See above.
Quantity of material removed from MS4		tons	direct measure; report in tons.
Quantity of debris removed that could have enter MS4 (i.e. street sweeping, litter removal)		tons	direct measure; report in tons.

QUALITATIVE ASSESSMENT:

1. Describe the major accomplishments of this component over the past year.

2. Summarize the educational and outreach activities conducted for this component over the past year to educate staff on water quality principles.

3. Summarize new activities or improvements to be implemented next year as a result of your self-assessment.

4. Other comments.

FINANCIAL ASSESSMENT:

Estimated annual storm water expenditures:

Personnel Expenditures: _____

Non-personnel Expenditures: _____